



CITY COUNCIL

AGENDA REQUEST

AGENDA OF:	11-02-10	AGENDA REQUEST NO:	IV-A
INITIATED BY:	JESSIE LI, PH.D., P.E., ASSISTANT UTILITIES DIRECTOR	RESPONSIBLE DEPARTMENT:	UTILITIES
PRESENTED BY:	JESSIE LI, PH.D., P.E., ASSISTANT UTILITIES DIRECTOR	DEPARTMENT HEAD:	SUE ELLEN STAGGS, DIRECTOR OF UTILITIES <i>EMS</i>
		ADDITIONAL DEPARTMENT HEAD (S):	CHRISTOPHER STEUBING, P.E. CITY ENGINEER <i>CLS</i>
SUBJECT / PROCEEDING:	GROUNDWATER PLANT IMPROVEMENTS FOR SURFACE WATER CONVERSION CIP SW1001 AUTHORIZE FINAL ENGINEERING DESIGN SERVICES CONTRACT		
EXHIBITS:	ENGINEERING SERVICES CONTACT WITH MALCOLM PIRNIE		
CLEARANCES		APPROVAL	
LEGAL:	JOE MORRIS, CITY ATTORNEY <i>JCM for JDM</i>	EXECUTIVE DIRECTOR:	N/A
PURCHASING:	TODD REED, PURCHASING MANAGER <i>(P)</i>	ASST. CITY MANAGER:	KAREN DALY <i>KD</i>
BUDGET:	JENNIFER BROWN, <i>JB</i> BUDGET & RESEARCH DIRECTOR	CITY MANAGER:	ALLEN BOGARD <i>Allen Bogard</i>
BUDGET			
EXPENDITURE REQUIRED: \$		799,076	
CURRENT BUDGET: \$		800,000	
ADDITIONAL FUNDING: \$		N/A	
RECOMMENDED ACTION			
Authorize engineering final design services contract with Malcolm Pirnie for the Groundwater Plant Improvements for Surface Water Conversion for CIP No. SW1001 in a maximum amount of \$799,076.			

EXECUTIVE SUMMARY

To meet the Fort Bend Subsidence District (FBSB) regulations, the City will build a surface water treatment plant (SWTP) adjacent to Oyster Creek and Gannoway Lake. The SWTP will be constructed for an initial production capacity of 9.0 million gallons per day (MGD) (Phase I), with capability for future expansion to 22.0 MGD (Phase II). The Phase I SWTP is currently under final engineering design and the construction is anticipated to start early next year. The treated surface water will be delivered to the Lakeview and First Colony Groundwater Plants for blending with groundwater and redistribution.

The purpose of this project is to conduct the engineering design for the necessary improvements at the two groundwater plants to receive treated surface water, adding ammonia feed systems at all six existing groundwater plants to match the disinfectant used at the SWTP, and adding additional chlorine contact tanks to meet the new Groundwater Disinfection Rule. The preliminary engineering services (SWPE01) for this project was conducted by Malcolm Pirnie and completed in October 2010. Malcolm Pirnie was selected for both PER and final design services through a formal RFQ process in January 2010.

The final engineering design will be based on the design criteria, concepts, and layouts developed in the PER and will include detailed design drawings, bid documents, technical specifications, and cost estimates for the following major items:

- Chlorine contact tanks to provide 4-log chemical inactivation of viruses at the Lakeview and First Colony groundwater plants.
- Flow control stations and yard piping at the two groundwater plants to connect to surface water transmission lines being designed by LAN.
- Inlet piping modifications to the ground storage tanks at the Lakeview and First Colony groundwater plants.
- Additional booster pumps at the First Colony groundwater plants to provide 13,000 gpm firm capacity.
- Facilities to feed liquid ammonium sulfate (LAS) to combine with free chlorine to form chloramines at the six existing groundwater plants, including new chemical buildings, bulk storage tanks, concrete containments, chemical feed pumps, etc.
- Process control on-line analyzers for monitoring water quality parameters.
- SCADA improvements to include new remote input/output panels to connect to the existing SCADA communication system.
- Associated civil, structural, electrical, and instrumentation work.
- Survey and site investigations.

Two bid packages will be developed to allow the chloramines conversion to occur before introducing surface water, which will give the water system and our customers time to get used to the new disinfectant. The first and the second bid packages will be completed in 150 and 273 calendar days, respectively after the Notice to Proceed is authorized. The FY2012 CIP Budget for construction of the project is \$8,800,000. Construction will be funded through the 2011 issuance of Certificates of Obligation Bonds backed by Surface Water Revenues (GRP fees).

Funding is available for this contract in CIP SW1001 with a balance of \$800,000. The Utilities Department and Engineering Department recommend the City Council authorize the contract in a maximum amount of \$799,076 with Malcolm Pirnie.

EXHIBITS

**CITY OF SUGAR LAND STANDARD CONTRACT
FOR PROFESSIONAL ENGINEERING DESIGN
SERVICES FOR CITY FACILITIES**

Over \$50K - Form Revised 3/1/10

I. General Information and Terms.

Engineer's Name and Address: Malcolm Pirnie Inc.
1700 West Loop S # 1450
Houston, TX 77027-3008

Project Description: Groundwater Plant Improvements for Surface Water
Conversion Project

Maximum Contract Amount: \$799,076

Effective Date: On the latest date of the dates executed by both parties.

Termination Date: (See III F)

Contract Parts: This Contract consists of the following parts:


- I. General Information and Terms
- II. Signatures
- III. Standard Contractual Provisions
- IV. Additional Terms or Conditions
- V. Additional Contract Documents

II. Signatures. By signing below, the City and the Engineer agree to the terms of this Contract, which consists of the following parts:

CITY OF SUGAR LAND

ENGINEER:

City Manager or Assistant City Manager

By: _____

Date: _____

Date: 21 OCT 10_____

Reviewed for Legal Compliance:

